

# Mineral Industry Surveys

---

For information, contact:

James F. Carlin, Jr., Tin Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4985, Fax: (703) 648-7757  
E-mail: jcarlin@usgs.gov

Elsie D. Isaac (Data)  
Telephone: (703) 648-7950  
Fax: (703) 648-7975  
E-mail: eisaac@usgs.gov  
MINES FaxBack: (703) 648-4999  
Internet: <http://minerals.usgs.gov/minerals>

## TIN IN OCTOBER 1999

Domestic consumption of primary tin in October was estimated by the U.S. Geological Survey to be about 2% lower than that in September and 1% lower than that in October 1998.

The *Platt's Metals Week* average composite price for tin in October was \$3.70 per pound, 2% higher than in September, and 1% higher than in October 1998.

Over the past 2 years, Wheeling-Pittsburgh Steel Corp. and Weirton Steel Corp., both tinplate producers and significant consumers of tin, conducted intermittent discussions on possible joint ventures or merger. For the present, however, the 2 organizations have broken off talks. Both firms are based in the Upper Ohio River Valley (American Metal Market, 1999b).

VSZ/U.S. Steel, the joint venture of Pittsburgh, PA-based U.S. Steel Corp. and Slovak steelmaker VSZ, announced that it would restart the expansion project at its steel mill in Slovakia that was suspended in January 1999 because of VSZ's financial troubles. In the first phase of the expansion, VSZ intends to complete a double cold-reducing/temper mill and associated upgrades that will lift tinplate production capacity from the current 140,000 tons per year to 340,000 tons per year. VSZ will then have the widest product range among central European steel manufacturers, enabling it to meet the region's demand for value-added tin plate. The project will be funded partly by capital from U.S. Steel Corp. VSZ indicated that a number of elements had been installed when the project was suspended, including machinery for high-speed precise steel cutting and a plating solution evaporator. All new facilities were designed to exceed western European environmental standards. Upon completion of the first phase at the end of 2000, Italian plant builder Danieli SpA. is to deliver new continuous annealing and electrolytic tinning lines (American Metal Market, 1999a).

Yunnan Tin Corp. (China) announced that it expected to

produce about 24,000 metric tons of tin in 2000, the same as it will produce in 1999. China produces about one-third of the world's tin supply, and Yunnan provides about 40% of China's total. In 1999, Yunnan was privatized and floated its shares on the Shenzhen Stock Exchange on October 11. Yunnan holds 62% of the issued shares (Platt's Metals Week, 1999).

In Brazil, MAMORE S.A., the tin sector of the conglomerate Grupo PARANAPANEMA, announced plans to boost its declining tin production. For several years, the alluvial tin deposits at the Pitinga Mine have been running out. MAMORE completed a study to move to hard-rock mining over the next 4-5 years. An initial re-grinding project will produce 16,000 tons of tin over a 4-year period, commencing in 2001, from Pitinga's 20 million tons of tailings. MAMORE's production is expected to fall from around 10,500 tons in 1999 to 9,000 tons in 2000 before stabilizing at 10,000 tons over the next 4 years. Production should rise to 13,000 tons annually after 2005, assuming the hard-rock program is fully implemented (CRU Tin Monitor, 1999a).

### Update

On December 10, 1999, the *Platt's Metals Week* composite price for tin was \$3.84 per pound.

### References Cited

- American Metal Market, 1999a, VSZ, US Steel tin mill expansion on again: American Metal Market, v. 107, no. 220, November 16, p. 4.
- 1999b, Weirton, WHX break off talks: American Metal Market, v. 107, no. 203, October 21, p. 1, 12.
- CRU Tin Monitor, 1999a, Latest Brazilian developments: CRU International Ltd., December, p. 8.
- Platt's Metals Week, 1999, Yunnan output steady in 2000: Platt's Metals Week, v. 70, no. 46, November 15, p. 16.

TABLE 1  
SALIENT TIN STATISTICS 1/

(Metric tons, unless otherwise noted)

	1999		
	1998	September	October
Production, secondary e/ 2/	16,100	900	900
Consumption:			January-October
Primary	37,100	3,460	3,400
Secondary	8,620	880	916
Imports for consumption, metal	44,000	4,600	NA
Exports, metal	5,020	681	NA
Stocks at end of period	10,700	7,790 r/	8,380
Prices (average cents per pound): 3/			
Metals Week composite 4/	373.26	364.61	369.61
Metals Week New York dealer	261.38	252.56	256.44
London, standard grade, cash	251.00	242.00	246.00
Kuala Lumpur	246.06	239.02	242.98

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices.

2/ Includes tin recovered from alloys and tinplate. The detinning of tinplate (coated steel) yields only a small part of the total.

3/ From Platt's Metals Week.

4/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It normally is substantially higher than other tin prices.

TABLE 2  
METALS WEEK COMPOSITE PRICE 1/

(Cents per pound)

Period	High	Low	Average
1998:			
October	374.40	356.46	366.88
November	380.73	361.99	370.09
December	363.97	350.47	357.58
January-December	413.70	350.47	373.26
1999:			
January	353.37	343.72	348.60
February	364.44	351.24	356.57
March	363.63	356.99	361.19
April	377.31	357.08	365.05
May	384.76	373.61	380.66
June	368.44	354.81	360.01
July	362.56	356.00	357.87
August	362.04	355.27	358.10
September	372.30	357.68	364.61
October	383.67	363.53	369.61

1/ The Metals Week composite price is a calculated formula, not a market price, that includes fixed and finance charges, and a risk factor. It normally is substantially higher than other tin prices.

Source: Platt's Metals Week.

TABLE 3  
TINPLATE PRODUCTION AND SHIPMENTS IN THE UNITED STATES 1/

(Metric tons, unless otherwise noted)

Period	Tinplate waste (waste, strips, cobble, etc.) (gross weight)	Tinplate (all forms)			Shipments 2/
		Gross weight	Tin content	Tin per metric ton of plate (kilograms)	
1998	W	1,700,000	8,900	5.2	2,320,000
1999:					
January	W	127,000	695	5.5	185,000
February	W	135,000	702	5.2	177,000
March	W	143,000	757	5.3	218,000
April	W	144,000	770	5.4	195,000
May	W	148,000	795	5.5	196,000
June	W	144,000	748	5.2	207,000
July	W	154,000	748	4.9	193,000
August	W	172,000	830	4.8	222,000
September	W	166,000	778 r/	4.7 r/	209,000
October	W	144,000	737	5.1	NA

r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits.

2/ Shipments data from American Iron and Steel Institute monthly publication.

TABLE 4  
U.S. TIN IMPORTS FOR CONSUMPTION AND EXPORTS 1/

(Metric tons)

Country or product	1999			
	1998	August	September	January- September
Imports:				
Metal (unwrought tin):				
Bolivia	5,160	177	650	2,620
Brazil	4,710	500	200	3,060
Chile	894	235	255	2,870
China	9,870	1,450	1,440	10,200
Hong Kong	840	39	35	169
India	359	--	--	--
Indonesia	7,880	623	503	5,810
Japan	222	(2/)	99	223
Malaysia	1,870	--	--	744
Peru	8,650	970	1,290	7,910
Singapore	822	--	--	60
Thailand	540	--	--	20
United Arab Emirates	100	--	--	--
United Kingdom	790	1	19	41
Vietnam	212	--	--	--
Other	1,060	47	111	372
Total	44,000	4,040	4,600	34,100
Other (gross weight):				
Alloys	1,320	336	245	2,490
Bars and rods	1,160	64	58	637
Foil, tubes, and pipes	3	--	(2/)	1
Plates, sheets, and strip	93	9	20	53
Waste and scrap	4,190	71	507	2,260
Miscellaneous	1,800	174	251	1,590
Total	8,560	654	1,080	7,030
Exports (metal)	5,020	779	681	5,120

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5  
CONSUMPTION OF TIN IN THE UNITED STATES, BY FINISHED PRODUCT 1/

(Metric tons of contained tin)

		1999						January- October total
Product	1998	September			October			
		Primary	Secondary	Total	Primary	Secondary	Total	
Alloys (miscellaneous) 2/	W	W	W	W	W	W	W	W
Babbitt	1,020	W	W	W	W	W	W	22
Bar tin and anodes	704	20	--	20	21	--	21	204
Bronze and brass	3,610	126	132	258	232	161	393	2,700
Chemicals	8,170	684	W	684	684	W	684	6,790
Collapsible tubes and foil	238	W	W	W	W	W	W	W
Solder	16,900	955 r/	345 r/	1,300 r/	781	280	1,060	11,600
Tinning	1,100	35	--	35	32	--	32	440
Tinplate 3/	8,900	778 r/	--	778 r/	737	--	737	7,560
Tin powder	W	W	--	W	W	--	W	W
White metal 4/	778	W	--	W	W	--	W	W
Other	4,260	265 r/	103 r/	368 r/	308	175	483	5,270
Total reported	45,700	2,860	580	3,440	2,800	616	3,410	34,600
Estimated undistributed consumption 5/	--	600	300	900	600	300	900	8,100
Grand total	45,700	3,460	880	4,340	3,400	916	4,310	42,700

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes terre metal.

3/ Includes secondary pig tin and tin components of tinplating chemical solutions.

4/ Includes pewter, britannia metal, and jewelers' metal.

5/ Estimated consumption of plants reporting on an annual basis.

TABLE 6  
DEFENSE LOGISTICS AGENCY  
TIN STOCKPILE DISPOSALS 1/

(Metric tons)

Period	Monthly disposals 2/
1998:	
October	190
November	--
December	20
January-December	1,900
1999:	
January	20
February	--
March	5
April	30
May	--
June	20
July	220
August	220
September	220
October	--
Total	735

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ These disposals represent only the daily spot sales program, not the long-term dealer contract sales program.

Source: Defense Logistics Agency.